

## CLAIMS

### What is claimed is:

1. A portable computer comprising:  
a flat-panel display;  
a display controller for outputting an internal video signal to the flat panel display;  
means for receiving an external video signal; and  
a multiplexer for outputting either the internal video signal or the external video signal to the flat-panel display.
2. The portable computer of claim 1 further including an analog-to-digital converter and converter logic coupled between the receiving means and the multiplexer for converting the external video signal into a format required by the flat-panel display.
3. The portable computer of claim 2 wherein the receiving means includes a sensor for automatically sensing the external video signal and causing the multiplexer to output the external video signal for display.
4. The portable computer of claim 3 wherein receiving means includes a software driver that enables a user to manually select between displaying the internal video signal or the external video signal.
5. The portable computer of claim 4 wherein the receiving means includes a dual mode display connector coupled to the analog-to-digital converter for receiving the external video signal.

- 1 6. The portable computer of claim 4 wherein the portable computer includes  
2 an external CRT connector and wherein the receiving means includes a  
3 dual mode display adapter coupled to the external CRT connector for  
4 accepting the external video signal.
- 1 7. The portable computer of claim 6 wherein the portable computer further  
2 includes a second multiplexer coupled between the external CRT  
3 connector and a digital-analog-converter for isolating the output of the  
4 digital-analog-converter so that the external video signal may be received  
5 through the dual mode display adapter and the external CRT connector.
- 1 8. A method for enabling a portable computer to display an external video  
2 signal, the portable computer having a flat-panel display, the method  
3 comprising the steps of:  
4  
5 1. providing the portable computer with means for receiving the  
6 external video signal;  
7 2. inputting an internal video signal to a multiplexer;  
8 3. inputting the external video signal to the multiplexer; and  
9 4. providing the portable computers with dual display modes, such  
10 that in a first display mode, the multiplexer outputs the internal  
11 video signal to the flat-panel display, while in a second display  
12 mode, the multiplexer outputs the external video signal to the flat-  
13 panel display, thereby enabling the portable computer to act as a  
display device for an external computer.

- 1 9. The method of claim 8 wherein step (a) further includes the step of:  
2 coupling an analog-to-digital converter and converter logic between the  
3 receiving means and the multiplexer for converting the external video  
4 signal into a format required by the flat-panel display.
- 1 10. The method of claim 9 wherein step (a) further includes the step of:  
2 providing the receiving means with a sensor for automatically sensing the  
3 external video signal and causing the multiplexer to output the external  
4 video signal for display.
- 1 11. The method of claim 10 wherein step (a) further includes the step of:  
2 providing the receiving means with a software driver enables a user to  
3 manually select between displaying the internal video signal or the  
4 external video signal.
- 1 12. The method of claim 11 wherein step (a) further includes the step of:  
2 coupling a dual mode display connector to the analog-to-digital converter  
3 for receiving the external video signal.
- 1 13. The method of claim 11 wherein the portable computer includes an  
2 external CRT connector and wherein step (a) further includes the step of:  
3 coupling a dual mode display adapter to the external CRT for accepting  
4 the external video signal.

1 14. The method of claim 13 wherein step (a) further includes the step of:  
2 coupling a second multiplexer between the external CRT connector and a  
3 digital-analog-converter for isolating the output of the digital-analog-  
4 converter so that the external video signal may be received through the  
5 dual mode display adapter and the external CRT connector.

1 15. A dual display mode portable computer comprising:  
2 a flat-panel display;  
3 a display controller for generating an internal video signal; and  
4 receiving means for receiving an external video signal, the receiving  
5 means including,  
6 a dual mode display connector for receiving the external video signal,  
7 an analog-to-digital converter coupled to the dual mode display connector  
8 for converting the external video signal into a digital external video signal,  
9 converter logic coupled to the analog-to-digital converter for mapping the  
10 digital external video signal into a format required by the flat-panel, and  
11 a multiplexer coupled to the display controller and the converter logic for  
12 receiving the internal video signal and the external video signal, such that  
13 that in a first display mode, the multiplexer outputs the internal video  
14 signal to the flat-panel display, while in a second display mode, the  
15 multiplexer outputs the external video signal to the flat-panel display,  
16 thereby enabling the portable computer to act as a display device for an  
17 external computer.

1 16. A dual display mode portable computer comprising:  
2 a flat-panel display;  
3 a display controller for generating an internal video signal;  
4 a digital-to-analog converter and an external CRT connector for  
5 outputting the internal video signal to an external monitor; and  
6 receiving means for receiving an external video signal, the receiving  
7 means including,  
8 a dual mode display adapter coupled to the external CRT connector for  
9 enabling the external CRT connector to receive an external video signal,  
10 an analog-to-digital converter coupled to the external CRT connector for  
11 converting the external video signal into a digital external video signal,  
12 converter logic coupled to the analog-to-digital converter for mapping the  
13 digital external video signal into a format required by the flat-panel;  
14 a first multiplexer coupled between the digital-to-analog converter and the  
15 external CRT connector, and  
16 a second multiplexer coupled to the display controller and the converter  
17 logic for receiving the internal video signal and the external video signal,  
18 such that in a first display mode, the first multiplexer outputs the  
19 internal video signal to the flat-panel display, while in a second display  
20 mode, the first multiplexer isolates output from the digital-to-analog  
21 converter while the second multiplexer outputs the external video signal  
22 to the flat-panel display, thereby enabling the portable computer to act as  
23 a display device for an external computer.